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## QUALITOOL 214 SPECIFICATIONS

### GENERAL CHARACTERISTICS

Qualitool 214 is a modified epoxy resin primarily intended for laminating plastic tools. When combined with Hardener M, Qualitool 214 exhibits excellent properties and when cured, the laminate will have superior physical properties. The low viscosity of the resin/hardener combination enables the fabricator to maintain a close ratio of resin to glass cloth which further insures a close tolerance finished plastic tool.

### PHYSICAL PROPERTIES

Shore D Hardness ..... 85  
Heat Distortion Point ..... 180° F  
Shrinkage (in/in) ..... 0.0002  
Viscosity (cps) ..... 750 ± 200  
Compressive Strength ..... 30,000  
Flexural Strength ..... 45,000  
Tensile Strength ..... 21,000  
Weight in lbs. per cu. in ... 0.0398  
Weight in lbs. per gallon (lbs.) 9.2  
Specific Gravity ..... 1.10

### MIXING INSTRUCTIONS

23 parts by weight Hardener M  
100 parts by weight Qualitool 214  
or  
19 parts by weight Hardener J-2  
100 parts by weight Qualitool 214

**GEL TIME** with Hardener M  
200 gram mass ..... 43 minutes  
**Gel Time** with Hardener J-2  
200 gram mass ..... 24 minutes  
**CURE TIME** ..... 18-24 hours

### APPLICATIONS

Master models - trim templates - gauges - check fixtures - patterns - keller models - drill jigs - overpress templates - prototype parts - vacuum forming dies - assembly fixtures - trim fixtures - router tools.

MATERIAL SAFETY DATA SHEETSECTION I Company Identification and covered productsManufactures name, address and phone number

RCV INDUSTRIES  
P.O. Box 2539  
Canyon Country, CA 91351-7539  
805-251-9986 (For All Information)

Prepared: 9/1/86

Identity: Chemical Name, Chemical Family and Synonyms

Epoxy Resin Formulated Liquid Epoxy

Tradenames

Qualitool 214 Resin

SECTION II Hazardous Ingredients

C12 and C14 Alkyl Glycidyl Ethers  
TLV: Not Established

Bisphenol A Diglycidyl Ether Resin  
TLV: Not Established

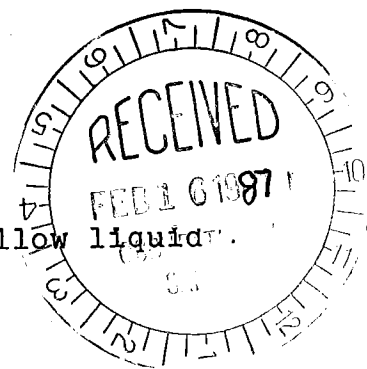
SECTION III Physical/Chemical Characteristics

Appearance: Clear, colorless to pale yellow liquid.

Percent Volatile: Nil

Solubility in water: Nil

Specific Gravity: CA. 1.1 (H2O = 1)

SECTION IV Fire and Explosion Data

Flash Point: &gt; 200F closed cup

Extinguishing media: Carbon Dioxide, foam, dry chemical, water spray.

Fire Fighting Procedures - special: Use self-contained breathing apparatus.

Unusual fire and explosion hazards: Decomposition and combustion products may be toxic.

SECTION V Health Hazard Data

Overexposure effects: Irritation, sensitization and dermatitis.

Emergency and first aid procedures - eyes: Immediately flush eyes with water for at least 15 minutes. Call a physician.

Emergency and first aid procedures - skin: Promptly wash with mild soap and water.

Emergency and first aid procedures - ingestion: If conscious, give large quantities of water. Induce vomiting. Call a physician.

Emergency and first aid procedures - inhalation: Remove to fresh air. Give oxygen if breathing is difficult.

Emergency and first aid procedures - other: Promptly remove wet contaminated non-impervious clothing. Wash before reuse.

## SECTION VI   Reactivity Data

Conditions to avoid: Elevated temperatures.

Incompatibility: Strong oxidizing agents.

Hazardous decomposition products: Carbon Monoxide, Carbon Dioxide, Aldehydes.

Hazardous Polymerization: Will not occur.

Conditions to avoid: Strong acids or bases in bulk.

## SECTION VII   Spill or Leak Procedures

Spill Procedures: Avoid all personal contact. Take up with absorbent material. Shovel into closable containers. Flush contaminated area with water.

Waste Disposal Methods: Dispose in accordance with Federal, State and local regulations.

## SECTION VIII   Special Protection Information

Ventilation: Good general mechanical ventilation and local exhaust.

Protective gloves: Wear impervious gloves.

Eye protection: Wear splash-proof chemical goggles.

Respiratory protection: Organic chemical cartridge respirator, if needed.

Other protective equipment: Wear appropriate equipment to prevent eye or skin contact. Use of barrier cream recommended.

## SECTION IX   Special Precautions

Handling, Shipping and storing precautions: CAUTION! May cause irritation, Dermatitis and sensitization.

Avoid contact with eyes, skin or clothing.

Avoid breathing vapor, mist or spray.

Store in cool, dry area in closed containers.

Wash after handling.

## SECTION X   Regulatory Information

Dot class: Not regulated

The information contained herein is based on data believed by Poly-Resins to be accurate, but we do not assume any liability for the accuracy of this information. We neither suggest nor guarantee that any hazards mentioned are the only ones which exist. Anyone intending to rely on any recommendation or to use any equipment, technique or material mentioned should also satisfy himself that he can meet all applicable safety and health standards. Determination of the suitability of any information or product for the use contemplated by any user, the manner of that use and whether there is any infringement of patents is the sole responsibility of the user.